

(b) No exhaust system shall discharge to the atmosphere at a location immediately below the fuel tank or the fuel tank filler pipe.

(c) The exhaust system of a bus powered by a gasoline engine shall discharge to the atmosphere at or within 6 inches forward of the rearmost part of the bus.

(d) The exhaust system of a bus using fuels other than gasoline shall discharge to the atmosphere either:

(1) At or within 15 inches forward of the rearmost part of the vehicle; or

(2) To the rear of all doors or windows designed to be open, except windows designed to be opened solely as emergency exits.

(e) The exhaust system of every truck and truck tractor shall discharge to the atmosphere at a location to the rear of the cab or, if the exhaust projects above the cab, at a location near the rear of the cab.

(f) No part of the exhaust system shall be temporarily repaired with wrap or patches.

(g) No part of the exhaust system shall leak or discharge at a point forward of or directly below the driver/sleeper compartment. The exhaust outlet may discharge above the cab/sleeper roofline.

(h) The exhaust system must be securely fastened to the vehicle.

(i) Exhaust systems may use hangers which permit required movement due to expansion and contraction caused by heat of the exhaust and relative motion between engine and chassis of a vehicle.

[53 FR 49401, Dec. 7, 1988]

#### § 393.84 Floors.

The flooring in all motor vehicles shall be substantially constructed, free of unnecessary holes and openings, and shall be maintained so as to minimize the entrance of fumes, exhaust gases, or fire. Floors shall not be permeated with oil or other substances likely to cause injury to persons using the floor as a traction surface.

[53 FR 49401, Dec. 7, 1988]

#### § 393.85 [Reserved]

#### § 393.86 Rear impact guards and rear end protection.

(a)(1) *General requirements for trailers and semitrailers manufactured on or after January 26, 1998.* Each trailer and semitrailer with a gross vehicle weight rating of 4,536 kg (10,000 pounds) or more, and manufactured on or after January 26, 1998, must be equipped with a rear impact guard that meets the requirements of Federal Motor Vehicle Safety Standard No. 223 (49 CFR 571.223) in effect at the time the vehicle was manufactured. When the rear impact guard is installed on the trailer or semitrailer, the vehicle must, at a minimum, meet the requirements of FMVSS No. 224 (49 CFR 571.224) in effect at the time the vehicle was manufactured. The requirements of paragraph (a) of this section do not apply to pole trailers (as defined in § 390.5 of this chapter); pulpwood trailers, low chassis vehicles, special purpose vehicles, wheels back vehicles (as defined in § 393.5); and trailers towed in driveaway-towaway operations (as defined in § 390.5).

(2) *Impact guard width.* The outermost surfaces of the horizontal member of the guard must extend to within 100 mm (4 inches) of the side extremities of the vehicle. The outermost surface of the horizontal member shall not extend beyond the side extremity of the vehicle.

(3) *Guard height.* The vertical distance between the bottom edge of the horizontal member of the guard and the ground shall not exceed 560 mm (22 inches) at any point across the full width of the member. Guards with rounded corners may curve upward within 255 mm (10 inches) of the longitudinal vertical planes that are tangent to the side extremities of the vehicle.

(4) *Guard rear surface.* At any height 560 mm (22 inches) or more above the ground, the rearmost surface of the horizontal member of the guard must be within 305 mm (12 inches) of the rear extremity of the vehicle. This paragraph shall not be construed to prohibit the rear surface of the guard from extending beyond the rear extremity of